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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,915	02/07/2005	Fortunato Fedegari	47966.8.1	9469

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EXAMINER

EL ARINI, ZEINAB

ART UNIT

PAPER NUMBER

1746

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/523,915

**Applicant(s)**

FEDEGARI ET AL.

**Examiner**

Zeinab E. EL-Arini

**Art Unit**

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/07/2005</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: In the specification, page 1, "American patent No. 5,711,829 in the name of Smith et al." has been cited, however, the name of the inventor and the subject matter in this patent is different than the cited name and subject matter.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 1, "the removal" lacks antecedent basis. At line 9, "the heat", at line 11, "the respective stages" and "the cycle" are without antecedent basis.

In claim 1, line 11 is confusing in the recitation of "providing for a heat exchange---". Also, at line 9, "characterized in that" is confusing, because it is not clear if it refers to the method or to the supercritical phase.

In claim 2, line 2, "the heating temperature" and at line 3, "the cooling temperature" are without antecedent basis.

In claim 3, line 2, "the heating pressure" and at line 3, "the cooling pressure" lack antecedent basis.

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In claim 7, line 2, "the movement" lacks antecedent basis.

In claim 12, line 3, "the circulation" lacks antecedent basis.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 4, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 00/56970 (WO'970).

WO'970 discloses a method for removal of substances from a solid surface. The method comprising washing the surface with operating fluid in a liquid or supercritical phase, evaporating the fluid, and compressing the evaporated fluid, and removing the heat by using heat exchanger as claimed. See the abstract, fig. 1, and page 2, line 23- page 8, line 27.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2- 3, 5-6 and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO'970 in combination with Summerfield et al. (2002/0023662), GB 1405976 (GB'976) and Fedegari (6,481,247).

WO'970 as discussed supra does not teach the temperature, the pressure, the cyclone, the solid matrix comprises swarf, the plate-type heat exchanger, and arranging two containers for containing the solid matrix in parallel as claimed.

It would have been obvious for one skilled in the art to adjust the temperature and pressure of WO'970 fluid to obtain optimum results.

Summerfield et al. disclose plurality of extraction vessels may be arranged in parallel. See fig. 1, and paragraph 86.

GB'976 discloses plate-type heat exchanger as claimed.

Fedegari discloses an apparatus for cleaning garments and the degreasing of electronic or mechanical components uses operative fluid liquid and/ or supercritical carbon dioxide. See the abstract.

It would have been obvious for one skilled in the art to use the heat exchanger taught by GB'976 and more than one container taught by Summerfield et al. in the WO'970 apparatus to obtain the claimed invention. It would have been obvious for one skilled in the art to use the process taught by WO'970 to remove oil from the solid matrix because it is well known in the art to use supercritical fluid to remove oil from solid matrix as claimed. See Fedegari, the abstract.

It would have been obvious for one skilled in the art to use the cyclone separator because it is well known in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zeinab E. EL-Arini whose telephone number is (571) 272-1301. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Zeinab E. EL-Arini*  
Zeinab E. EL-Arini  
Primary Examiner  
Art Unit 1746

ZEE  
06/22/06